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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,327	03/09/2001	David Magda Eddy Corynen	BE 000009	7328

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EXAMINER

HARVEY, DIONNE

ART UNIT PAPER NUMBER

2643

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,327

Applicant(s)

CORYNEN, DAVID MAGDA EDDY

Examiner

Dionne N. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/02;3/01
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claim 7** recites the limitation "the longitudinal axis" in line 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-6 and 10** are rejected under 35 U.S.C. 102(e) as being anticipated by **Lock (US 6,411,723)**.

Regarding claim 1, in figure 5, Lock teaches a loudspeaker comprising an acoustic panel **14**; in **figure 4**, Lock teaches a front **25** and rear **26** surface, reading on, "having a first main surface and, extending substantially parallel thereto, a second main surface"; in **figure 5**, Lock teaches that an exciter **17,18** is attached to the panel via a hole, thereby being in contact with both the front and rear surfaces and thus reading on "and comprising an electrical exciter arranged on the first main surface"; in

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column 2, lines 4-10, Lock teaches that the panel produces acoustic radiation as a result of bending waves, as claimed; and **in column 5, lines 28-51**, Lock teaches a rigid panel **28**, used for modifying the frequency response curve of the loudspeaker, thus being interpreted by the Examiner as reading on a "tuning element"; Lock teaches that the tuning element is disposed *near* the second main surface, as broadly claimed, and further teaches **in figure 5**, that the tuning element **28** extends at least partly opposite the exciter **17,18**, so as to form a resonant cavity (***see that cavity which is defined between frame 11, acoustic panel 14 and tuning element 28***), between the panel and the tuning element, as claimed.

Regarding claims 2 and 3, **in column 4, lines 49-53**, Lock teaches that the loudspeaker, comprising the diaphragm and rigid panel i.e., tuning member, may be circular, thereby reading on "characterized in that the tuning element is disc-shaped" as well as reading on "characterized in that the tuning element is annular"; figure 5 illustrates that the tuning element **28** extends at least substantially parallel to the panel **14**.

Regarding claim 4, **figure 5**, teaches that the tuning element **28** is secured to the panel via **11**.

Regarding claim 5, **in column 5, lines 30-32**, Lock teaches that the diaphragm **14** is 3-5mm from the tuning element, reading on "characterized in that a shortest distance in the range from 1 to 4 mm exists between the tuning element and the panel."

Regarding claim 6, Lock teaches peripheral frame **11**, reading on a "cover" being attached to the rear face of the diaphragm **14** and therefore extending at least

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substantially parallel thereto; Lock further teaches that the rear face of the peripheral frame is adhesively attached to the rigid panel **28** i.e., tuning member, and is therefore integrated therewith. Since the peripheral frame is constructed so as to comprise an open center, it is interpreted as providing an "acoustically transparent cover" for the rear surface of the diaphragm.

Regarding claim 10, Lock teaches that the loudspeaker is characterized by a rear wall 28, which extends at least substantially parallel to the panel, which rear wall forms a cavity with the panel (*see that cavity which is defined between frame 11, acoustic panel 14 and tuning element 28*); illustrated in **figure 6**, Lock teaches that the rear wall may be formed with one or more frequency-tuned apertures **30**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lock (US 6,411,723)** in view of **Azima (US 6,144,746)**.

Regarding claim 9, as discussed in the rejection of claims 2 and 3 above, in **column 4, lines 49-53**, Lock teaches that the loudspeaker may be in annular form. Lock does not clearly teach that the panel is connected to the frame with the aid of a soft material connecting means.

In **figure 1**, Azima teaches that a panel form loudspeaker may be supported to a frame by using a connecting means **3**; said connecting means **3** comprising an strip of a soft material and strip being interposed between a circumferential edge portion of the panel **2** and a portion of the frame **1**.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings Lock and Azima, using the peripherally disposed soft-material connection means for mounting the planar speaker within the frame structure, thereby preventing excessive edge movement of the panel form loudspeaker.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. **Claims 1, 7 and 8** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 1 and 2 of U.S.**

Patent No. 6,590,993 in view of **Lock (U.S. Patent No. 6,411,723.**

For example, In the immediate application, claim 7, which includes all the limitations of claim 1 recites:

"A loudspeaker comprising an acoustic panel having a first main surface and, extending substantially parallel thereto, a second main surface and comprising an electrical exciter arranged on the first main surface, the panel producing acoustic radiation upon energization of the exciter, at least subsequently as a result of bending waves produced in the panel, characterized in that the loudspeaker has a tuning element disposed near the second main surface and extending at least partly opposite the exciter, so as to form a resonant cavity between the panel and the tuning element... .. characterized in that the panel has two walls extending at least substantially parallel to each other and connected to each other and has a structure of strip-shaped partitions extending between the walls of the panel, the longitudinal axes of all of said partitions extending at least parallel to each other and parallel to the walls, said partitions being further secured to the walls, the walls and the partitions being made of a material which, used in the panel, has an internal damping which is at least 2.5% of the critical damping of the relevant material, used in the panel."

While claim 1 of U.S. Patent No. 6,590,993 recites:

"...a panel and at least an exciter coupled to one main wall of the panel so as excite a bending wave pattern in the panel, said panel including a second main wall with both walls being at least substantially parallel to each other and interconnected, characterized in that the panel comprises a structure of strip-shaped partitions...the partitions of the panel being made of a material which has an internal damping which is at least 2.5% of the critical damping of the material, as used in the panel."

Although the claims are not identical, they contain obvious wording variations such as "one main wall" as recited in U.S. Patent No. 6,590,993, has been replaced with "a first main surface", in the immediate application.

Furthermore, although U.S. Patent No. 6,590,993 does not clearly recite that a "tuning" element is disposed near the second main surface.

Lock (U.S. Patent No. 6,411,723), in **column 5, lines 28-51**, teaches that a rigid panel **28**, which reads on “tuning element”, is disposed *near* the second main surface, as broadly claimed, and further teaches **in figure 5**, that the tuning element **28** extends at least partly opposite the exciter **17,18**, so as to form a resonant cavity (***see that cavity which is defined between frame 11, acoustic panel 14 and tuning element 28***), between the panel and the tuning element, as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of U.S. Patent No. 6,590,993 and Lock (U.S. Patent No. 6,411,723), thereby modifying the frequency response curve of the loudspeaker.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne N. Harvey whose telephone number is 571-272-7497. The examiner can normally be reached on 9-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571-272-7499. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dionne Harvey


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